PCT10

| RAW SEQUENCE LISTING | DATE: 07/16/2002 |
| PATENT APPLICATION: US/10/019,931 | TIME: 13:48:35 |

Input Set : **A:\Robic 11.app**
Output Set: **N:\CRF3\07162002\J019931.raw**

```
 3 <110> APPLICANT: Varin, Luc
 4        Gidda, Satinda
 6 <120> TITLE OF INVENTION: Methods, compositions and genetic sequences for
 7        modulating flowering in plants, and plants genetically
 8        modified to flower early and tardily.
10 <130> FILE REFERENCE: ROBIC 214187
12 <140> CURRENT APPLICATION NUMBER: 10/019,931
13 <141> CURRENT FILING DATE: 2000-07-06
15 <150> PRIOR APPLICATION NUMBER: PCT WO 01/02589 A2
16 <151> PRIOR FILING DATE: 2000-07-06
18 <160> NUMBER OF SEQ ID NOS: 4
20 <170> SOFTWARE: PatentIn Ver. 2.1
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 1077
24 <212> TYPE: DNA
25 <213> ORGANISM: Arabidopsis thaliana
27 <400> SEQUENCE: 1
28 atggctacct caagcatgaa gagcattcca atggcgatcc caagtttctc catgtgtcac 60
29 aagctcgagc tccttaaaga aggcaaaact cgcgacgtcc cgaaagccga agaagatgaa 120
30 gggctaagct gcgagttcca agagatgttg gattctcttc ctaaggagag aggatggaga 180
31 actcgttacc tttacctatt ccaagggttt tggtgccaag ccaaagagat tcaagccatc 240
32 atgtctttcc aaaaacattt ccaatccctc gaaaacgacg tcgttctcgc caccatacct 300
33 aaatccggta caacctggct aaaagcttta actttcacca tccttaaccg tcaccggttt 360
34 gatccggttg cctcgagtac caaccaccct cttttcactt ccaaccctca tgaccttgta 420
35 cctttcttcg agtacaagct ttacgccaac ggagatgttc ccgatctctc gggtctagcc 480
36 agtccaagaa cgttcgcaac ccacttaccg ttcggttccc taaaggaaac gatcgagaaa 540
37 cccggtgtga aggtcgtgta cttgtgccgg aacccgtttg acacattcat ctcttcgtgg 600
38 cattcacca acaacatcaa atccgagtca gtgagcccag tcttgctaga ccaagctttt 660
39 gatctgtatt gccgggggagt gatcgggttt ggcccgtttt gggaacacat gttgggatac 720
40 tggagagaga gcttgaagag accagagaaa gtcttctttt taaggtacga ggatctcaaa 780
41 gacgacatcg agaccaactt gaagaggctt gcaactttct tagagcttcc tttcaccgaa 840
42 gaagaggaac gaaagggagt tgtgaaggct atcgccgagc tgtgtagctt cgagaatctg 900
43 aagaagttgg aggtgaacaa gtcaaacaag tcgatcaaga actttgagaa tcgattcttg 960
44 tttcggaaag gagaagtgag tgattgggtt aactatttgt caccttcaca agtggaaaga 1020
45 ttgtcagcct tagtggatga caagttaggt ggatctggtc tcactttcag gttgagc    1077
48 <210> SEQ ID NO: 2
49 <211> LENGTH: 1041
50 <212> TYPE: DNA
51 <213> ORGANISM: Arabidopsis thaliana
53 <400> SEQUENCE: 2
54 atggcgatcc caagtttctc catgtgtcac aagcccgagc tccttaagga aggcaaaagc 60
55 gaaggccaag aagaagaagg gctaagctac gagttccaag agatgttgga ctctcttcct 120
56 aaggagagag gacggagaaa tcgttacctt tacttattcc aagggtttcg gtgccaagct 180
```

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/019,931

DATE: 07/16/2002
TIME: 13:48:35

Input Set : A:\Robic 11.app
Output Set: N:\CRF3\07162002\J019931.raw

```
57 aaggagattc aagctatcac gtctttccaa aaacattttc agtcccttcc agacgacgtt 240
58 gtcctcgcca ccatacctaa atctggcaca acctggttaa aagctttaac tttcaccatc 300
59 cttacccgtc atcggtttga tccggtttcc tcatcaagtt ccgaccaccc tcttctcaca 360
60 tccaaccctc acgacctcgt acctttcttc gagtacaagc tttacgccaa cggaaatgtt 420
61 cccgatctct cgggtctagc cagtccaaga acattcgcaa cccacgtacc gttcggtgcc 480
62 cttaaggatt cggtcgagaa tcccagtgtg aaggttgtgt acctgtgccg gaacccgttt 540
63 gacacattca tctccatgtg gcattacatc aacaacatca cttccgagtc agtgagcgca 600
64 gtcttgctag acgaagcttt tgatctatat tgccgggggat tactgatcgg atttggcccg 660
65 ttttgggaac acatgttggg atactggaga gagagcttga agaggccaga gaaagtctta 720
66 tttttaaagt acgaggatct caaagaagac atcgagacca acttgaagaa gctagcaagt 780
67 ttcttaggac ttcctttcac cgaagaagag gaacaaaagg gagttgtgaa agctatcgct 840
68 gatctgtgta gctttgagaa tctgaagaag ttggaggtga acaagtcaag caaattgatc 900
69 cagaactatg agaaccggtt cttgtttagg aaaggagaag tgagtgattt ggttaactat 960
70 ttgtcgccat cacaagtgga aagattgtca gccttagtgg atgacaagtt agctggatct 1020
71 ggtctcactt tcagattgag t                                          1041
74 <210> SEQ ID NO: 3
75 <211> LENGTH: 359
76 <212> TYPE: PRT
77 <213> ORGANISM: Arabidopsis thaliana
79 <400> SEQUENCE: 3
80 Met Ala Thr Ser Ser Met Lys Ser Ile Pro Met Ala Ile Pro Ser Phe
81  1               5                   10                  15
83 Ser Met Cys His Lys Leu Glu Leu Leu Lys Glu Gly Lys Thr Arg Asp
84              20                  25                  30
86 Val Pro Lys Ala Glu Glu Asp Glu Gly Leu Ser Cys Glu Phe Gln Glu
87          35                  40                  45
89 Met Leu Asp Ser Leu Pro Lys Glu Arg Gly Trp Arg Thr Arg Tyr Leu
90      50                  55                  60
92 Tyr Leu Phe Gln Gly Phe Trp Cys Gln Ala Lys Glu Ile Gln Ala Ile
93  65                  70                  75                  80
95 Met Ser Phe Gln Lys His Phe Gln Ser Leu Glu Asn Asp Val Val Leu
96                  85                  90                  95
98 Ala Thr Ile Pro Lys Ser Gly Thr Thr Trp Leu Lys Ala Leu Thr Phe
99              100                 105                 110
101 Thr Ile Leu Asn Arg His Arg Phe Asp Pro Val Ala Ser Ser Thr Asn
102              115                 120                 125
104 His Pro Leu Phe Thr Ser Asn Pro His Asp Leu Val Pro Phe Phe Glu
105          130                 135                 140
107 Tyr Lys Leu Tyr Ala Asn Gly Asp Val Pro Asp Leu Ser Gly Leu Ala
108 145                 150                 155                 160
110 Ser Pro Arg Thr Phe Ala Thr His Leu Pro Phe Gly Ser Leu Lys Glu
111              165                 170                 175
113 Thr Ile Glu Lys Pro Gly Val Lys Val Val Tyr Leu Cys Arg Asn Pro
114              180                 185                 190
116 Phe Asp Thr Phe Ile Ser Ser Trp His Tyr Thr Asn Asn Ile Lys Ser
117          195                 200                 205
119 Glu Ser Val Ser Pro Val Leu Leu Asp Gln Ala Phe Asp Leu Tyr Cys
120          210                 215                 220
122 Arg Gly Val Ile Gly Phe Gly Pro Phe Trp Glu His Met Leu Gly Tyr
```

RAW SEQUENCE LISTING   DATE: 07/16/2002
PATENT APPLICATION: US/10/019,931   TIME: 13:48:35

Input Set : A:\Robic 11.app
Output Set: N:\CRF3\07162002\J019931.raw

```
123 225                        230           235              240
125 Trp Arg Glu Ser Leu Lys Arg Pro Glu Lys Val Phe Phe Leu Arg Tyr
126               245                250              255
128 Glu Asp Leu Lys Asp Asp Ile Glu Thr Asn Leu Lys Arg Leu Ala Thr
129               260                265              270
131 Phe Leu Glu Leu Pro Phe Thr Glu Glu Glu Glu Arg Lys Gly Val Val
132               275                280              285
134 Lys Ala Ile Ala Glu Leu Cys Ser Phe Glu Asn Leu Lys Lys Leu Glu
135               290                295              300
137 Val Asn Lys Ser Asn Lys Ser Ile Lys Asn Phe Glu Asn Arg Phe Leu
138 305                310                315              320
140 Phe Arg Lys Gly Glu Val Ser Asp Trp Val Asn Tyr Leu Ser Pro Ser
141               325                330              335
143 Gln Val Glu Arg Leu Ser Ala Leu Val Asp Asp Lys Leu Gly Gly Ser
144               340                345              350
146 Gly Leu Thr Phe Arg Leu Ser
147               355
150 <210> SEQ ID NO: 4
151 <211> LENGTH: 347
152 <212> TYPE: PRT
153 <213> ORGANISM: Arabidopsis thaliana
155 <400> SEQUENCE: 4
156 Met Ala Ile Pro Ser Phe Ser Met Cys His Lys Pro Glu Leu Leu Lys
157   1               5                10               15
159 Glu Gly Lys Ser Glu Gly Gln Glu Glu Glu Gly Leu Ser Tyr Glu Phe
160               20                25               30
162 Gln Glu Met Leu Asp Ser Leu Pro Lys Glu Arg Gly Arg Arg Asn Arg
163               35                40                45
165 Tyr Leu Tyr Leu Phe Gln Gly Phe Arg Cys Gln Ala Lys Glu Ile Gln
166       50                55                60
168 Ala Ile Thr Ser Phe Gln Lys His Phe Gln Ser Leu Pro Asp Asp Val
169   65                70                75               80
171 Val Leu Ala Thr Ile Pro Lys Ser Gly Thr Thr Trp Leu Lys Ala Leu
172               85                90                95
174 Thr Phe Thr Ile Leu Thr Arg His Arg Phe Asp Pro Val Ser Ser Ser
175               100               105              110
177 Ser Ser Asp His Pro Leu Leu Thr Ser Asn Pro His Asp Leu Val Pro
178       115               120               125
180 Phe Phe Glu Tyr Lys Leu Tyr Ala Asn Gly Asn Val Pro Asp Leu Ser
181       130               135               140
183 Gly Leu Ala Ser Pro Arg Thr Phe Ala Thr His Val Pro Phe Gly Ala
184 145               150               155              160
186 Leu Lys Asp Ser Val Glu Asn Pro Ser Val Lys Val Val Tyr Leu Cys
187               165               170              175
189 Arg Asn Pro Phe Asp Thr Phe Ile Ser Met Trp His Tyr Ile Asn Asn
190               180               185              190
192 Ile Thr Ser Glu Ser Val Ser Ala Val Leu Leu Asp Glu Ala Phe Asp
193               195               200              205
195 Leu Tyr Cys Arg Gly Leu Leu Ile Gly Phe Gly Pro Phe Trp Glu His
```

RAW SEQUENCE LISTING   DATE: 07/16/2002
PATENT APPLICATION: US/10/019,931   TIME: 13:48:35

Input Set : A:\Robic 11.app
Output Set: N:\CRF3\07162002\J019931.raw

```
196         210                    215                    220
198 Met Leu Gly Tyr Trp Arg Glu Ser Leu Lys Arg Pro Glu Lys Val Leu
199 225                    230                    235                    240
201 Phe Leu Lys Tyr Glu Asp Leu Lys Glu Asp Ile Glu Thr Asn Leu Lys
202                    245                    250                    255
204 Lys Leu Ala Ser Phe Leu Gly Leu Pro Phe Thr Glu Glu Glu Glu Gln
205                    260                    265                    270
207 Lys Gly Val Val Lys Ala Ile Ala Asp Leu Cys Ser Phe Glu Asn Leu
208                    275                    280                    285
210 Lys Lys Leu Glu Val Asn Lys Ser Ser Lys Leu Ile Gln Asn Tyr Glu
211         290                    295                    300
213 Asn Arg Phe Leu Phe Arg Lys Gly Glu Val Ser Asp Leu Val Asn Tyr
214 305                    310                    315                    320
216 Leu Ser Pro Ser Gln Val Glu Arg Leu Ser Ala Leu Val Asp Asp Lys
217                    325                    330                    335
219 Leu Ala Gly Ser Gly Leu Thr Phe Arg Leu Ser
220                    340                    345
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/019,931

DATE: 07/16/2002
TIME: 13:48:36

Input Set : A:\Robic 11.app
Output Set: N:\CRF3\07162002\J019931.raw